

## **BREEDING OF „AIKOL” STRAIN SHEEP**

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### **ABSTRACT– Breeding of “Aikol” strain sheep**

Low-productive Kyrgyz fine-wool, fine- coarse-wool hybrids and local coarse-wool sheep have been interbred with Gissar breed sheep in Aikol cooperative. The Aikol meat-greasy pedigree group was created as a result of this work.

The lambs of “Aikol” strain grow faster than the local lambs. Their birth weight is 4,5-5,0 kg.

The weight of 4 months old lamb is 32-34 kg, an 18 months old young sheep is 76-78 kg, while the mature ram is 110-157 kg, and the weight of the ewe is 56-64 kg according to the age.

The breeding capacity of “Aikol” strain sheep is more productive in meat-fat and the ewe is better milker than the local sheep. They also possess good meat-grease quality and enable producing cheap and pollution-free mutton and fat-tailed bacon.

**Key words:** Aikol strain, meat-fat strain, fat tailed sheep

## **INTRODUCTION**

Sheep-breeding is the field which provides the people with meat, milk, wool, skin, clothes and others. And on the base of cattle-breeding the people in Central Asia keep the sheep and have their meat.

The eastern people had been using the meat of sheep in the traditional medicine, especially the fat of tailed-sheep. The Kyrgyz people cut the fat-tailed sheep for respectable guests for many years (LUSHIHIN,1959).

The demand for meat is increasing year by year, because of the visitors from different places and countries have resort to our sanatoriums.

The crossing of gissar sheep in the east and the sheep of “edilbai” genus with the local fine-fleece sheep was not successful for a long time (OSIPOV, 1969, NAZARKULOV, 1989).

The pedigree structure of sheep in Kyrgyzstan has changed during the last years in connection with transition to a market economy. Thus, in 1990 the share of fine wool production was 87%, semi-fine wool production was 7%, semi-coarse wool production was 3%, and coarse wool fat-tailed production was 3% of the total livestock. (AZHIBEKOV ET AL., 2001. MUKASHOV, 2001, NAZARKULOV, 2002). In the year of 2003 the share was 31.3% (fine wool), 6.2% (semi-fine), 0.6% (semi-course), and 61.9% (course). The reason of this pedigree ratio was the sharp reduction of the number of fine-fleece and semi-fine-fleece sheep due to fall of prices and demand for fine and semi-fine wool and also due to the increase of fat-tailed meat sheep, which has a niche in the domestic mutton market (MAMYTOV, 2003, AJIBEKO, 2005).

The crossing of Kyrgyz fine-fleece, Gissar raw sheep – Kyrgyz fine-fleece wool sheep and the local raw wool sheep was experimented for the first time in the condition of Kyrgyzstan, in Ton region, at the “Aikol” corporation. The aim of this experiment was to

improve the growth performance, to achieve better live weight of the sheep mainly in the meat-fat strain production.

## **MATERIAL AND METHOD**

The research work started in the southwest zone near Issyk-Kul. There were used the low-productive Kyrgyz fine-wool, fine- coarse-wool hybrids and local coarse-wool sheep have been interbred with Gissar breed sheep in Aikol cooperative. in Ton region.

First, the local raw wool sheep were mated with Kyrgyz fine-fleece breed sheep, than the given interbreed was crossed through “blood digestion” with gissar meat sheep. The research work was carried out by a breeding plan .

The economic situation of the corporation was good, the base of feed and veterinary conditions were satisfactory.

The sheep were kept mainly on the pasture by grazing but in winter they kept in sheep-fold and fed hay and food concentrates.

The constitution, live weight, and some parameters of the body were recorded, and the vitality of the animals was monitored.

The grazing fine-fleece wool sheep which participated in crossing grown badly, the achieved weight was only 46-48 kg, the wool was liquid, the length-width weren't flat, the lateral wool were short. The constitution of the sheep became tender; the living capacity was poor because of bad choosing and selection

Since 1994-95 the production of meat-fat strain sheep had began, and had been used the best way of crossing.

## **RESULTS**

In the result of annual selection and sorting, in 2008 the “Aikol” new meat-fat strain has produced and adopted. Nowadays the number of new race of sheep increased over 18 000. The constitution of such kind of sheep is strong, medium height is tall, the chest is broad and deep, legs are strong and long, the back is wide, the parts of body are straight, the fat is middle round.

The lambs grow and mature faster. The birth weight is 4,5 -5,0kg, 4 months old weight is 32-34kg.

The matured ram's weight is 110-157kg, 18 months old young ram's weight is 76-85kg, the ewe's weight is 56-64kg according to their age.

The main importance of farming of “Aikol” meat-fat strain is breeding capacity and feed the given breed with care. Usually the round fat sheep in meat-fat strain give less breed than fine-fleece and half fine-fleece sheep. The hard conditions of nature have been influence on breeding of the sheep for many centuries. And the poor feeding in winter and early spring season, the moving from one grassland to another, the stone sheep-folds instead of warm farm holdings, feeding the sheep in open-fields, all these influenced badly on breeding too.

The productivity of meat and wool of the sheep depend on their vital capacity of breed and without its decreases in sheep breeding. With the activity of breeding company, the ewe would give about 106-108 lambs / 100 ewe and the breeding depends on their age and the time of birth period The raw wool sheep of meat strain give little breed, but without

decrease. This breeding company is provided in cold winter season and beyond of Ton valley.

The breeding is start in December, and the yeap begins in May. The weather temperature in high mountains of Ton region (on 2800-3000m) is above -36-40C° cold in December-March. In such frosty days and nights young lambs spend winter under the fence pastures and in the sheep folders. It shows that the new race of the sheep is frost-resistant and they have high vital capacity. The one of the peculiarity of meat-fat strain round fat sheep is they live by the expense of their own fat and withstand different diseases.

The main particularity of “Aikol” strain sheep is their fast premature growth. Unfortunately, the lambs are put on weight for 2 month or till September and October. After the putting on weight the 6 months old lambs weight is about 36-40kg. The showing of meat-fat production of the sheep is characterized with cut weight, body meat, inside and tailed fat. The meaty body is that, the sheep of meat-fat strain. The weight of the sheep after cut is 20-22kg. The body composition of the sheep in high mountains such as Alp and Subalp, are more ecology pure, have the marble colour, delicate with aromatic smell and taste than the sheep in deserts. The muscle fat is plane and has thin nut shells. The meat-fat production of sheep is value with their round fat as a tasty food in Central Asia and it is the source of cheep meat production.

The 2,5-3,0 kg. weight of fat tail of the sheep is valued highly in Kyrgyz tradition and used for medicine.

The sheep milk contains much chemical substances and differs from the cattle milk. If the cow milk contains 3,3% protein average the sheep milk contains 5,9 %, so the output is 2,6 % higher. If the fat of cow milk is 3,7-3,8%, and the sheep milk contains 5,5-6,0% of fat the output is approximately 2,0% higher. The vitamin B1(thiamin), B2(riboflavin) content is two times more than in cow milk.

The lambs of “Aikol” meat-fat strain mature faster, because of their breeding properties and high chemical substance milk of the ewe. The milk-yield of matured ewe is about 142-167 kg / lactation and can feed the lambs with satisfaction.

The Kyrgyz people had been kept the lambs, and milk the sheep for many years. They made sour cream, butter, ayiran, whey-cheese or curds, kurut, suzmo and other special foods from sheep milk. And this way of methods, milking sheep and goats require more attention. Approximately, about 20-25 thousand ton of milked milk would be necessary to produce for a year. So, the income of sheep-breeding will increased.

The results of research work generated the development of Meat Sheep Breeding Plan in Kyrgyzstan: eg. a group of five members of the Akbuket community mated a total of 87 selected ewes to 4 purchased Aikol rams and, with help of scientists, recorded pedigree and performance of the progeny. These data will be used to select future male and female replacements and indicate parent's genetic merit. It is recommended to pay maximum attention in the data recording process to avoid mistakes. It is also recommended to progressively involve farmers more in the recording and selection process.

Visual inspection of the Aikol progeny indicates superiority in conformation and weight when compared with local sheep progeny, it is recommended to objectively verify this impression (MUELLER, 2009).

## CONCLUSION

For the first time in the southwest zone near Issyk-Kul, low-productive Kyrgyz fine-wool, fine- coarse-wool hybrids and local coarse-wool sheep have been interbred with Gissar breed shee. The Aikol meat-greasy pedigree group was created as a result of this work.

Concluded and summary of the main results:

1. Kyrgyz fine-fleece, local raw and gissar raw in meat-fat strain sheep and the sheep which produced on “blood-digestion” of “Aikol” race have more biological and breeding qualities than the local sheep. The new race of the sheep is frost-resistant and they have high vital capacity  
The constitution of the sheep is strong; the body is middle long, the back is broad, the body parts are straight, the fat is middle round.
2. The lambs grow and mature fast. The birth weight is 4,5-5,0 kg; 4 months old weight is 32-34 kg; the weight of matured ram is 110-157 kg; and the weight of ewe is 56-64kg.
3. The average breeding capacity of ewe is 106-108 lambs /100 ewe.
4. The average milk yield of the ewe is 142-147 kg/ year.
5. Sheep of the new pedigree group are steady to extreme conditions of high mountains, dry-steppe and semi-desert zones of the country.
6. They also possess good meat-grease quality and enable producing cheap and pollution-free mutton and fat-tailed bacon
7. The results are enlarged to the other region of Kyrgyzstan as well.

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